

USING PARCC DATA TO IMPROVE STUDENT LEARNING

NEW JERSEY STATE BOARD OF EDUCATION
FEBRUARY 10, 2016

Measuring
College and
Career
Readiness

NATIONAL NETWORK OF STATE TEACHERS OF THE YEAR REPORT

Former State Teachers of the Year compared NJASK test questions to PARCC test questions and found:

1. The new consortia assessments better reflect the range of reading and math knowledge and skills that all students should master.
2. The new consortia assessments include items that better reflect the full range of cognitive complexity in a balanced way.
3. The new consortia assessments better align with the kinds of strong instructional practices these expert teachers believe should be used in the classroom, and thereby better support great teaching and learning throughout the school year.
4. The new consortia assessments provide information relevant to a wide range of performers, particularly moderate and high-performers.
5. While the new consortia assessments are more rigorous and demanding, they are grade-level appropriate, and even more so than prior state tests.

NEW JERSEY GETS ITS FIRST "A"

Change in State Proficiency Standards, 2005-15

Hover over state for its grade each year

No. **6** New Jersey

2015 overall grade

A A- B+ B B- C+ C C- D+ D D- F

2013 overall grade

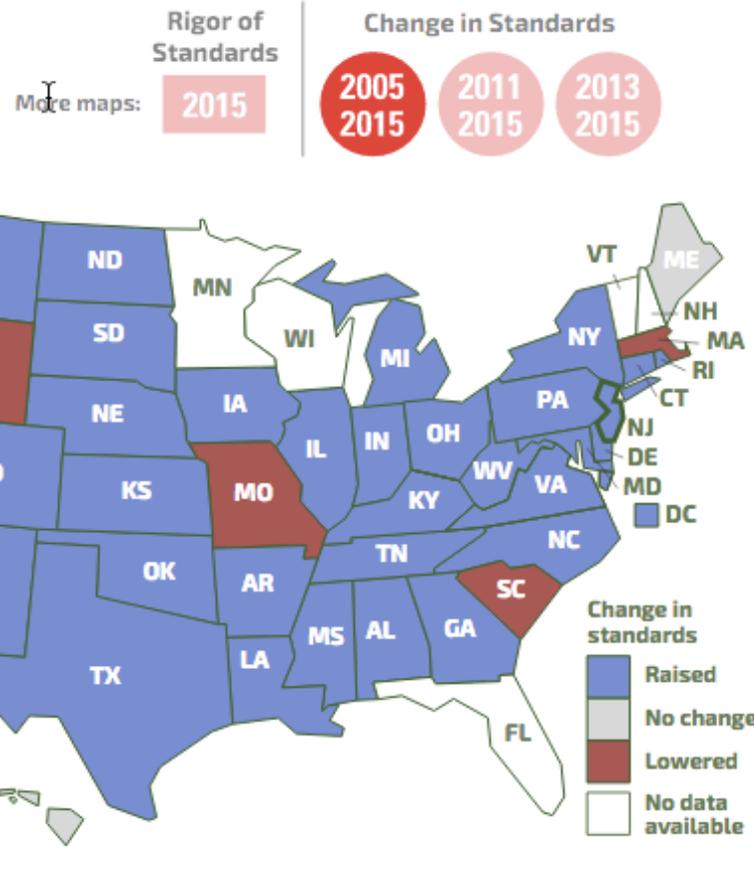
A A- B+ B B- **C+** C C- D+ D D- F

2011 overall grade

A A- B+ B B- C+ **C** C- D+ D D- F

2005 overall grade

A A- B+ B B- C+ C **C-** D+ D D- F



CLOSING THE “HONESTY GAP”



NEW JERSEY

New Jersey Makes Significant Progress towards Closing the “Honesty Gap”

**Following Implementation of New Assessments, New Jersey More Accurately
Reports Student Readiness; Should Stay the Course towards Honest
Information**

YEAR ONE DATA ANALYSIS GOALS

CONNECTED ACTION ROADMAP (CAR) QUESTIONS TO GUIDE PARCC DATA REFLECTION

- **How will we use PARCC data to identify strengths and gaps that exist in curriculum and instruction?**
- **How will we use PARCC data to inform the conversations of our educators?**
- **What can we learn about where additional professional resources are needed to meet the learning needs of all students?**

YEAR ONE DATA ANALYSIS PLAN: DRILLING DOWN

**District and School Level Data: Math, ELA,
reading and writing, and also by grade levels**

Disaggregated data, by subgroups

**Disaggregated data by
categories, (i.e., standards
sub-claims)**

Item analysis

**Student-level
analysis**

NJASK TO PARCC

USEFULNESS OF RESULTS

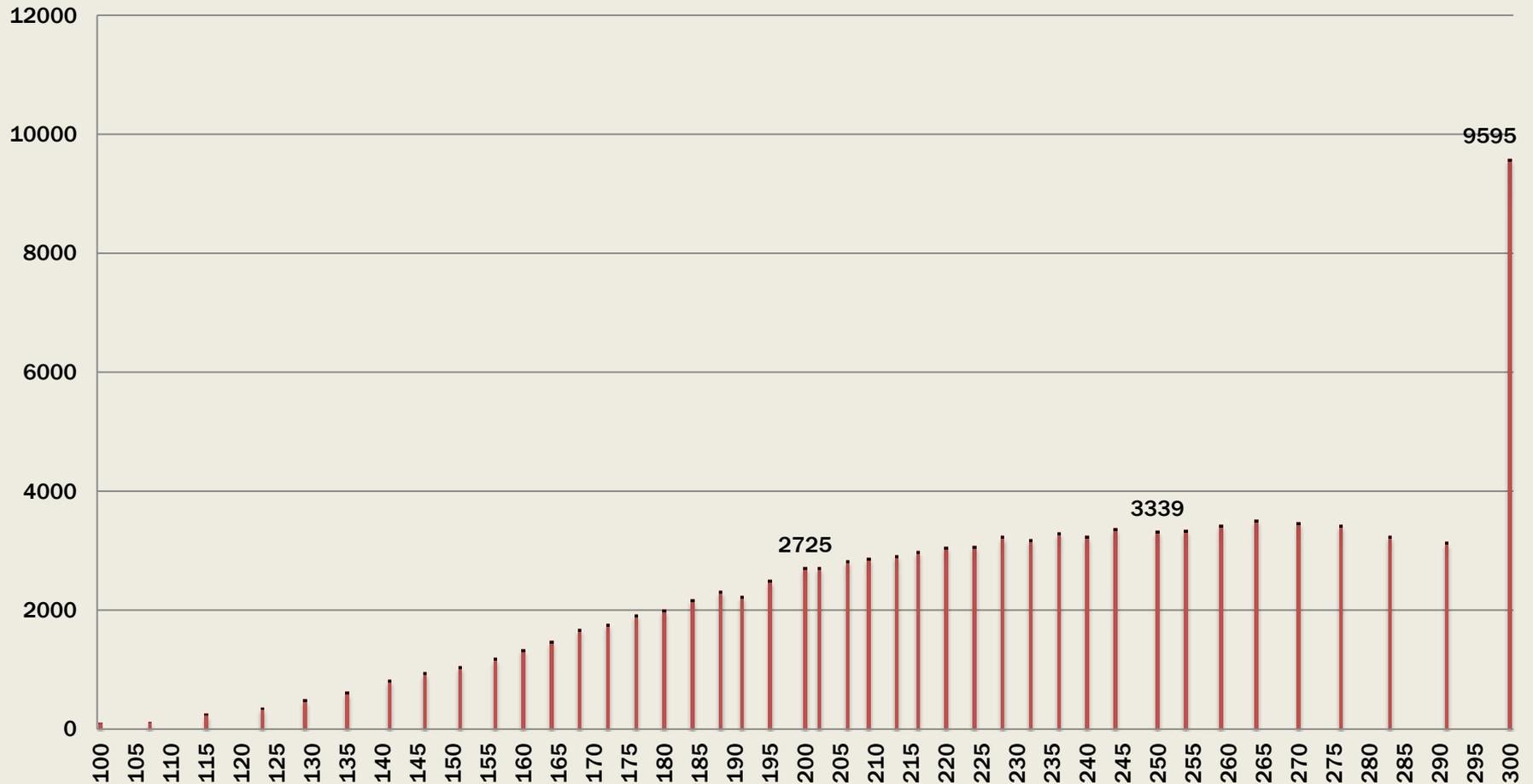
We've said:

- NJASK was a short test. It didn't have a lot of questions or points that students could earn.
- NJASK suffered both 'floor' and 'ceiling' effects.
- Instead of testing the full range of content of a grade level, NJASK sampled standards from year to year.

In practice, this meant:

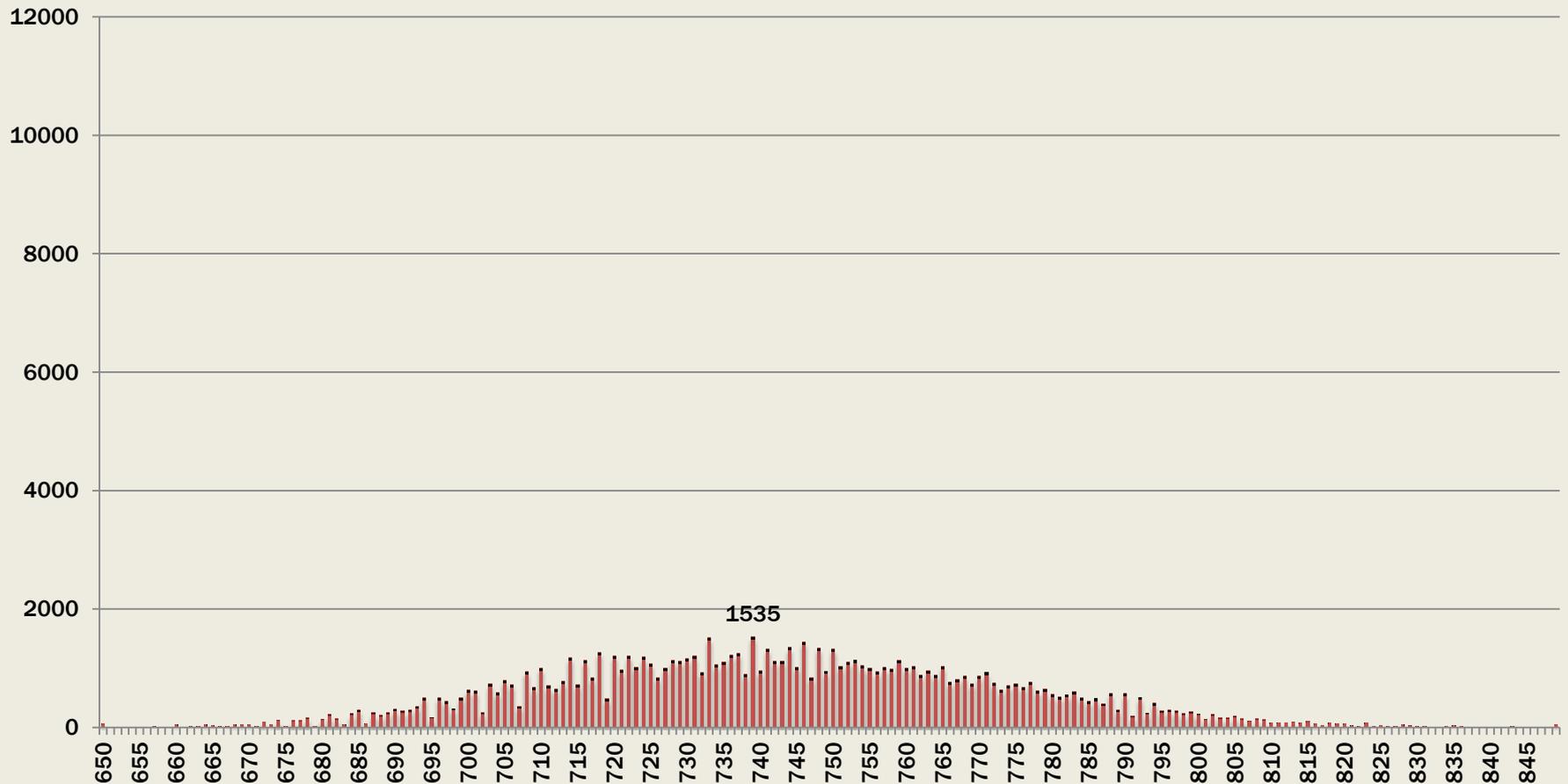
- We couldn't differentiate amongst all student outcomes well.
- And in particular, we couldn't differentiate amongst our highest and lowest performers well.
- In sum, the analysis of NJASK data didn't inform the work of our school districts in their efforts to improve student learning.

2014 NJASK GRADE 4 MATHEMATICS – COUNTS OF STUDENTS BY SCALE POINTS



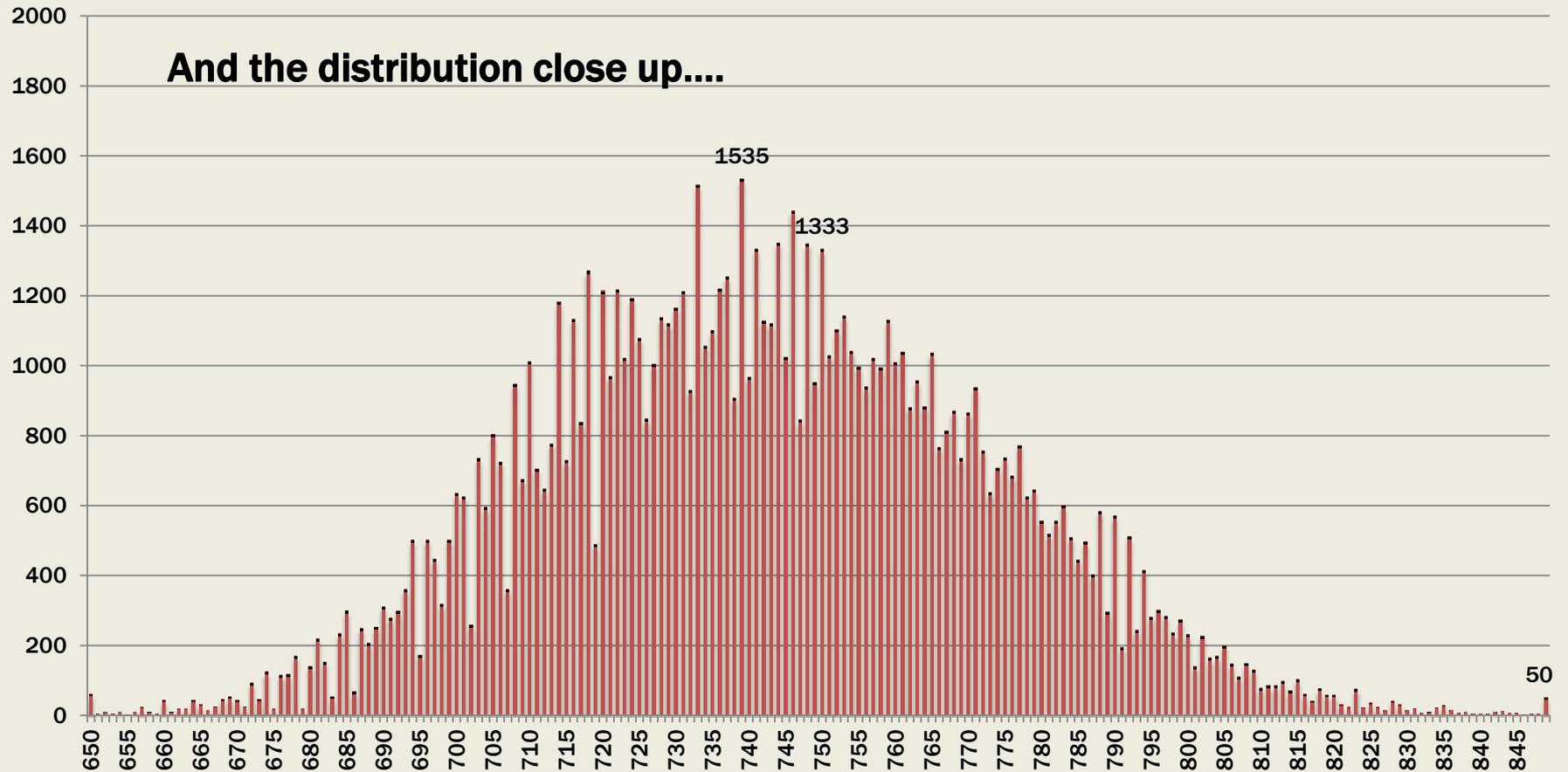
A total of 43 scale points were utilized between scale scores of 100 and 300.

2015 PARCC GRADE 4 MATHEMATICS – COUNTS OF STUDENTS BY SCALE POINTS



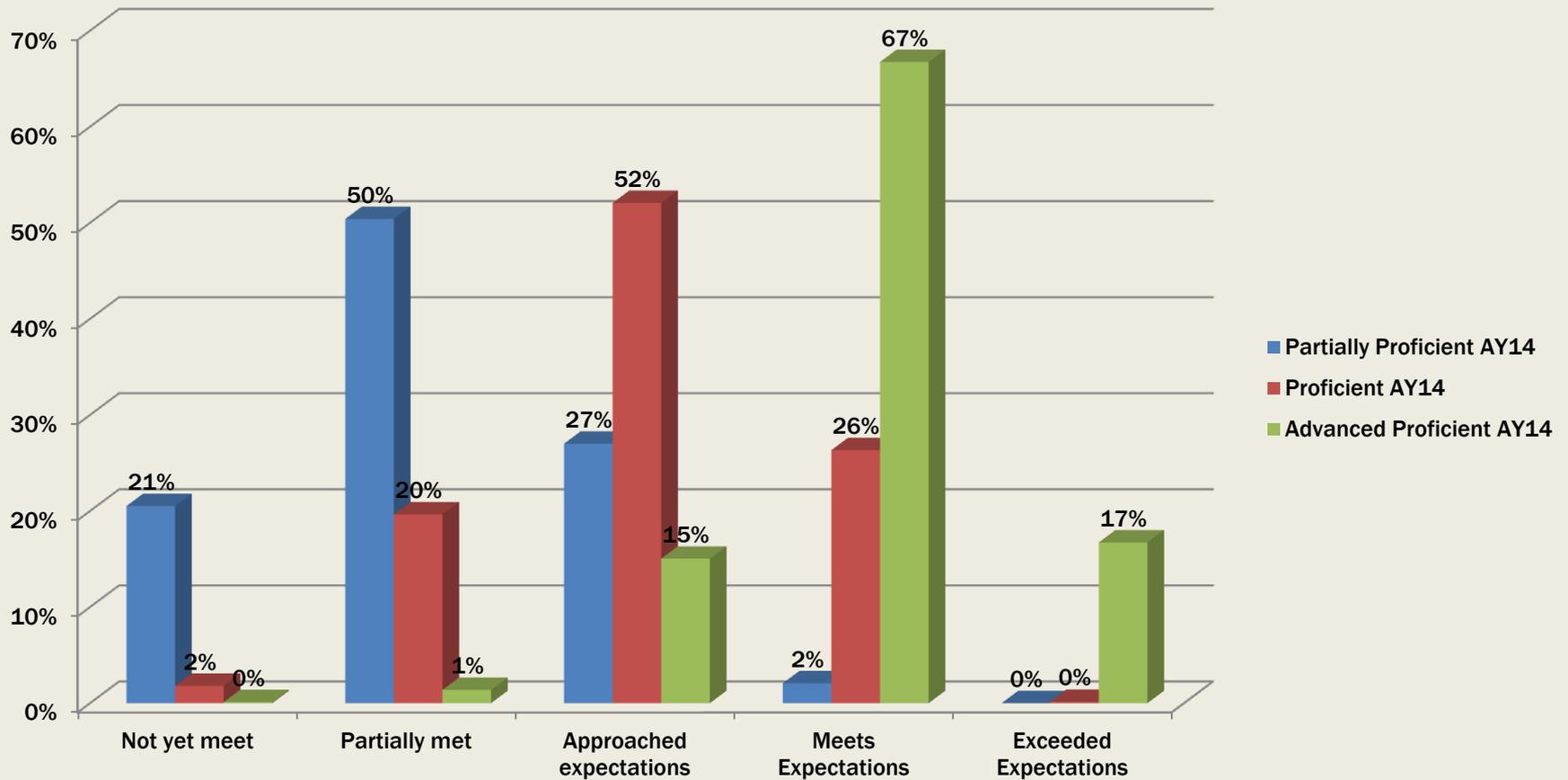
All 201 scale points were utilized between scale scores of 650 and 850.

2015 PARCC GRADE 4 MATHEMATICS – COUNTS OF STUDENTS BY SCALE POINTS

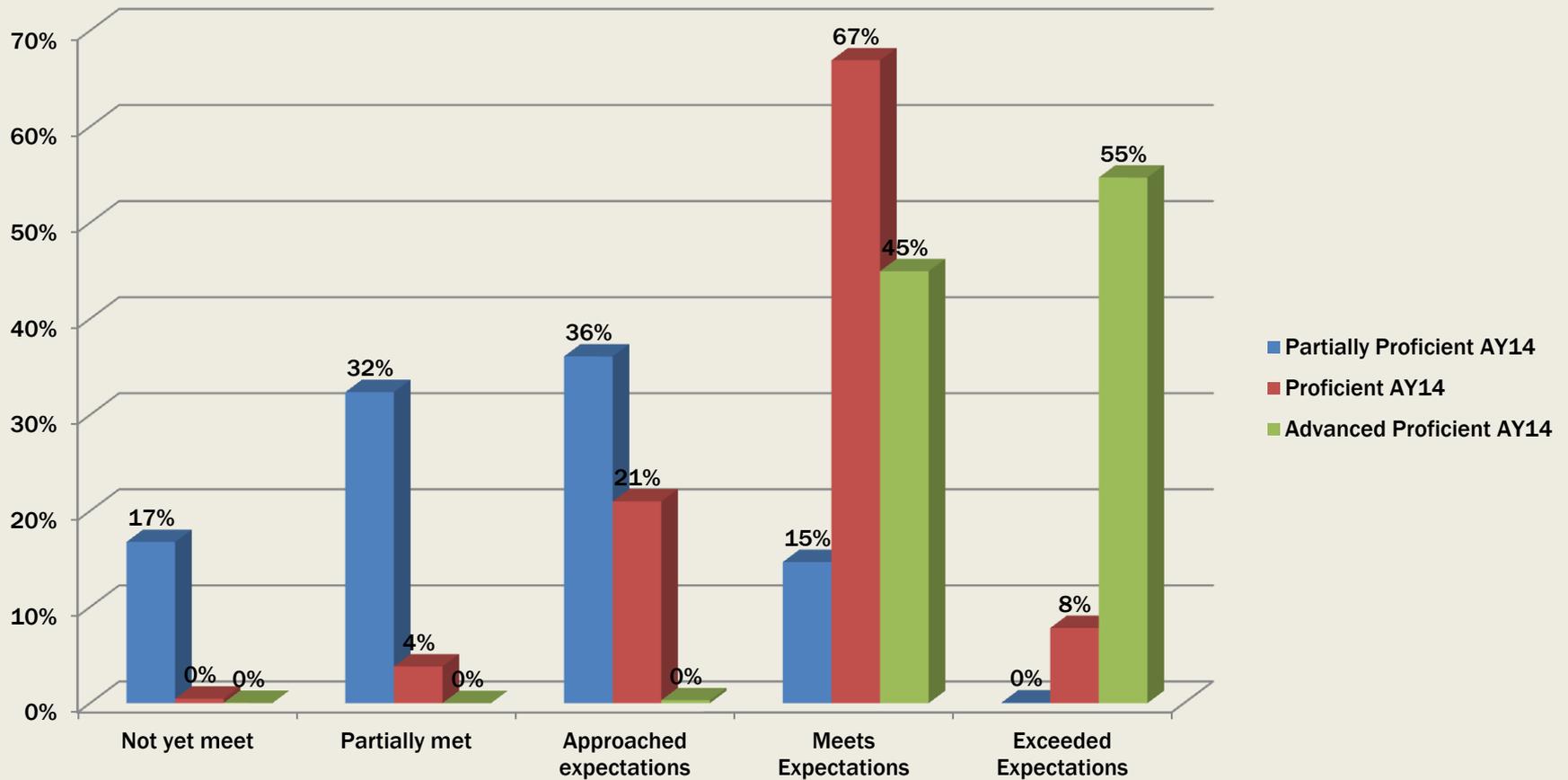


All 201 scale points were utilized between scale scores of 650 and 850.

2014 NJASK MATH4 PERFORMANCE LINKED TO 2015 PARCC MATH5 PERFORMANCE



2014 NJASK ELA4 PERFORMANCE LINKED TO 2015 PARCC ELA5 PERFORMANCE



ITEM ANALYSIS

Purpose: Gives educators an opportunity to identify strengths and weaknesses at a standards level.

Note: This charts to follow are 'mock ups' and do not contain real data.

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SAMPLE DISTRICT NAME

SAMPLE STATE

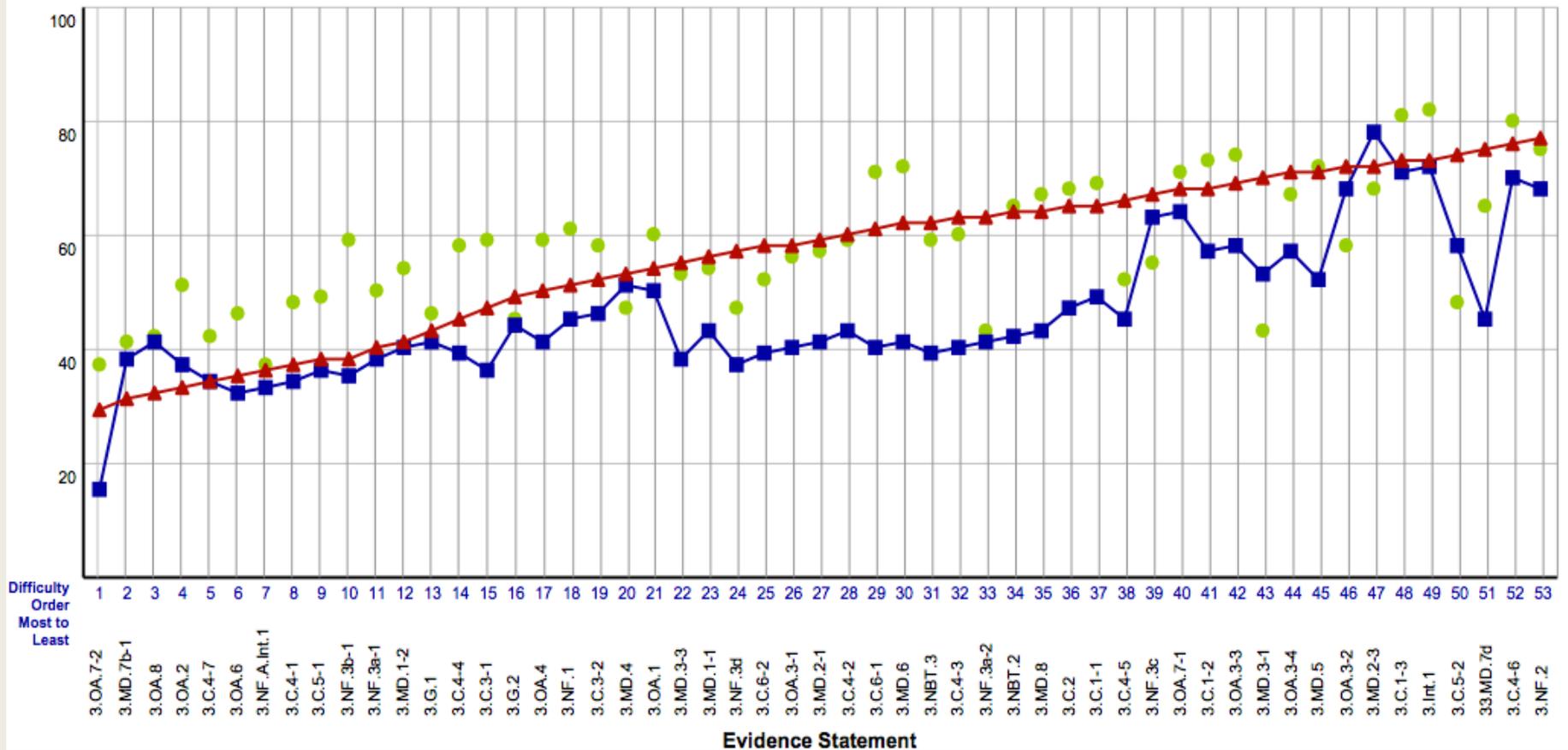
MATHEMATICS

Grade 3 Assessment, Spring 2015

- ▲ PARCC
- State
- District

Students with Valid Scores (999)

Purpose: This report presents the average percent correct by item for district, state and PARCC.



WHAT IS AN EVIDENCE STATEMENT?

Evidence statements describe the knowledge and skills that a test question/item elicits from students. Each test question is coded to a specific evidence statement.

In mathematics, PARCC evidence statement might:

- Use the exact same language as the Common Core standards.
- Focus on a specific part of a standard.
- Integrate standards, by bringing together standards across a domain.
- Focus on mathematical reasoning.
- Focus on mathematical modeling.



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SAMPLE DISTRICT NAME

SAMPLE STATE

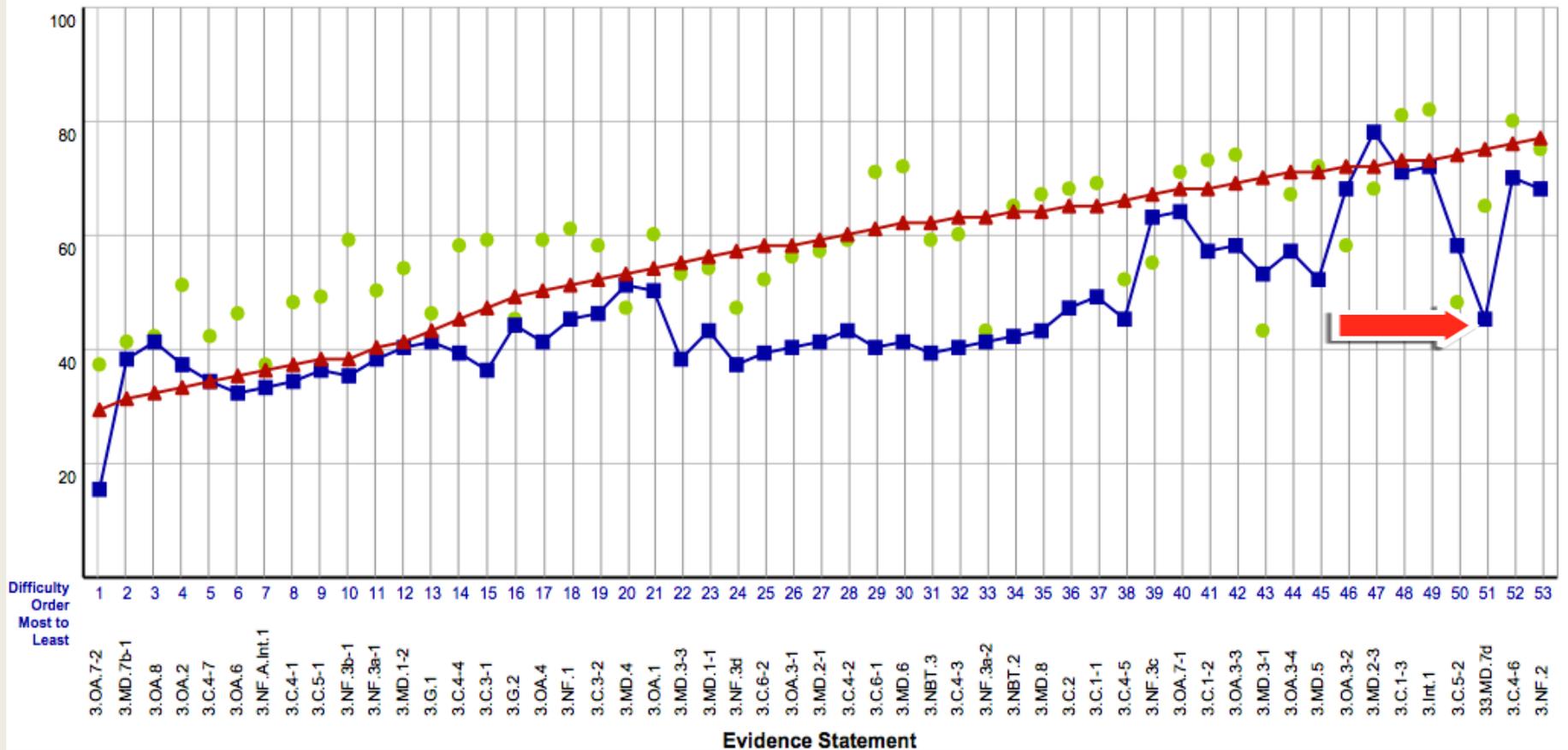
MATHEMATICS

Grade 3 Assessment, Spring 2015

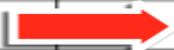
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MATHEMATICS**Grade 3 Assessment, Spring 2015**

Difficulty Order Most to Least	Evidence Statement	Common Core State Standard(s)	Domain
36	3.C.2	3.OA.B.06	Operations and Algebraic Thinking
37	3.C.1-1	3.OA.B.05	Operations and Algebraic Thinking
38	3.C.4-5	3.MD.C.07	Measurement and Data
39	3.NF.3c	3.NF.A.03.c	Numbers and Operations - Fraction
40	3.OA.7-1	3.OA.C.07	Operations and Algebraic Thinking
41	3.C.1-2	3.OA.D.09	Operations and Algebraic Thinking
42	3.OA.3-3	3.OA.A.03	Operations and Algebraic Thinking
43	3.MD.3-1	3.MD.B.03	Measurement and Data
44	3.OA.3-4	3.OA.A.04	Operations and Algebraic Thinking
45	3.MD.5	3.MD.C.05	Measurement and Data
46	3.OA.3-2	3.OA.A.03	Operations and Algebraic Thinking
47	3.MD.2-3	3.MD.A.02	Measurement and Data
48	3.C.1-3	3.MD.C.07	Operations and Algebraic Thinking
49	3.Int.1	Multiple	Multiple
50	3.C.5-2	3.MD.C.07.b 3.MD.C.07.d	Measurement and Data
51	 3.MD.7d	3.MD.C.07.d	Measurement and Data
53	3.C.4-6	3.OA.D.09	Operations and Algebraic Thinking
53	3.NF.2	3.NF.A.02	Numbers and Operations - Fraction

STANDARDS/EVIDENCE STATEMENTS

CCSS.MATH.CONTENT.3.MD.C.7.D

Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Sub-Claim	Evidence Statement Key	Evidence Statement Text
A	3.MD.7d 	Relate area to the operations of multiplication and addition. d. Recognize area as additive. Find areas of rectilinear ³ figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

CONNECTING TO RELEASED TEST QUESTIONS

Each test question in the PARCC assessments is identified by a Unique Identifier Number (UIN).

Released test questions from the 2015 PARCC assessments can be found at the PARCC Partnership Resource Center. In the guidance to the released items, a chart links PARCC evidence statements to the UINs.

The released items can then be searched by the UIN to find a released test question that is representative of a particular Evidence Statement/Standard or by the sequence number.

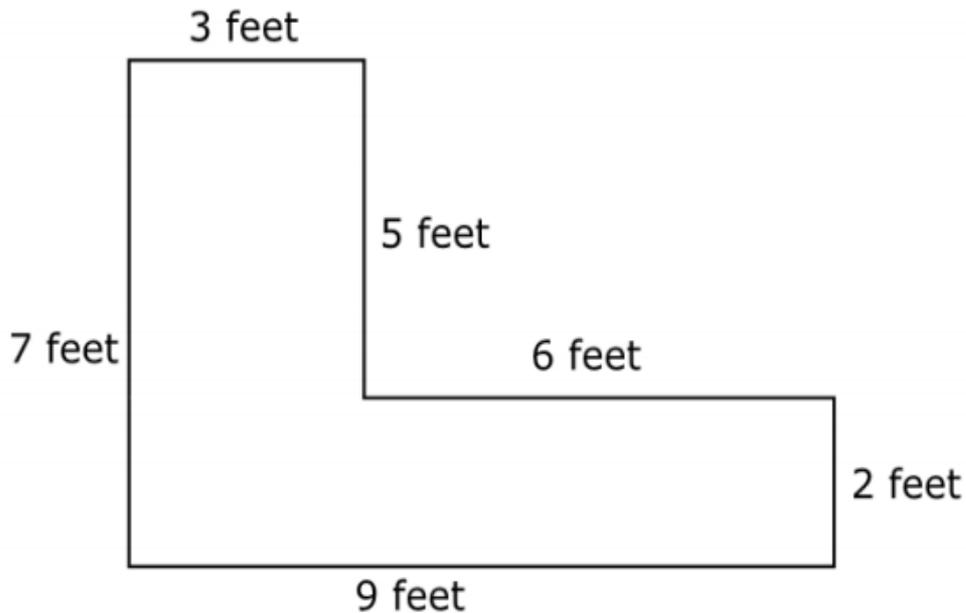
<https://prc.parcconline.org/assessments/parcc-released-items>

	Sequence	UIN (Insequence)	Task Type	Evidence Statements	Sub-Claims
End Of Year Grade 3	1	VF888777	Type I	3.OA.3-1	A
	2	VF656717	Type I	3.Int.1	A
	3	VF906869	Type I	3.OA.7-2	A
	4	M01071	Type I	3.MD.7b-1	A
	5	VF564965	Type I	3.NF.3b-1	A
	6	M02369	Type I	3.OA.7-2	A
	7	VF525281	Type I	3.NBT.3	B
	8	VF885478	Type I	3.NF.3a-1	A
	9	M01188	Type I	3.NF.1	A
	10	VH034734	Type I	3.MD.3-1	B
	11	VF822882	Type I	3.OA.3-3	A
	12	VH000905	Type I	3.NF.3d	A
	13	VF442827	Type I	3.MD.1-2	A
	14	VF563153	Type I	3.NF.2	A
	15	VF657436	Type I	3.Int.3	A
	16	M00887	Type I	3.NBT.2	B
	17	VH011663	Type I	3.OA.7-2	A
	18	M02022	Type I	3.MD.8	B
	19	M02035	Type I	3.OA.1	A
	20	VH011929	Type I	3.G.1	B
	21	VH011893	Type I	3.OA.7-2	A
	22	M01877	Type I	3.MD.2-2	A
	23	VF647226	Type I	3.G.2	B
	24	VH000998	Type I	3.MD.4	B
	25	VH003125	Type I	3.MD.8	B
	26	M02037	Type I	3.OA.2	A
	27	VF906806	Type I	3.OA.4	A
	28	M01400	Type I	3.NBT.2	B
	29	VH012290	Type I	3.NBT.3	B
	30	VF647323	Type I	3.Int.5	A
	31	VF906751	Type I	3.G.1	B
	32	M00189	Type I	3.OA.8	A
	33	VH009537	Type I	3.G.2	B
	34	VF556343	Type I	3.NBT.2	B
	35	0530-M00067	Type I	3.MD.3-3	B
	36	M01197	Type I	3.MD.2-1	A
	37	VF525289	Type I	3.MD.7d	A
	38	VF524247	Type I	3.NF.3c	A
	39	0487-M02026	Type I	3.NF.A.Int.1	A

RELEASED TEST QUESTION

VF525289

37. Rex's garden is made from two rectangles as shown.



What is the area of Rex's garden?

Enter your answer in the box.

 square feet

ALGEBRA I

ALGEBRA I PARCC OUTCOMES AND COURSE GRADES

	PARCC Algebra I (2015)		Percent "C" or higher in Algebra I course AY1415	
	Count	% Meeting or Exceeding	Count*	% \geq C
Grade 6	66	92%	62	100%
Grade 7	3,536	93%	3,305	94%
Grade 8	27,498	72%	24,944	89%
Grade 9	53,656	18%	44,923	67%
Grade 10	5,542	4%	3,170	48%
Grade 11	1,398	4%	623	46%

Looking for mismatches between outcomes and expectations is an important first step, i.e., roughly 18% of freshman met or exceeded expectations in PARCC Algebra I yet 67% received Cs or better in their course.

* Based on an overall 84% match rate at a student-level between NJSMART course roster collection and PARCC Algebra I assessment data.

9TH GRADE – ALGEBRA I OUTCOMES

	Economic Disadvantage	% of Level	Special Education	% of Level	English Language Learners	% of Level
Level One	5020	53%	3060	32%	1064	11%
Level Two	8417	47%	3817	21%	1245	7%
Level Three	5658	36%	1470	9%	479	3%
Level Four	2436	27%	434	5%	155	2%
Level Five	45	25%	5	3%	8	4%

QUESTIONS FOR DISTRICTS TO CONSIDER

1. Is the district appropriately placing students into Algebra I? In eighth grade? In ninth grade?
2. What is the district doing currently to support students in Algebra I? Differentiated supports?
3. Is the district's written curriculum aligned to Algebra I standards? Is the curriculum appropriately paced?
4. Is the taught curriculum aligned to the written curriculum? Does this vary across different sections of Algebra I? Are instructional strategies appropriate?
5. How is the district staffing Algebra I?
6. What additional efforts will need to be undertaken? Summer step-up programs? Extended learning opportunities? Double math periods?